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TREASURE STATE HEALTH

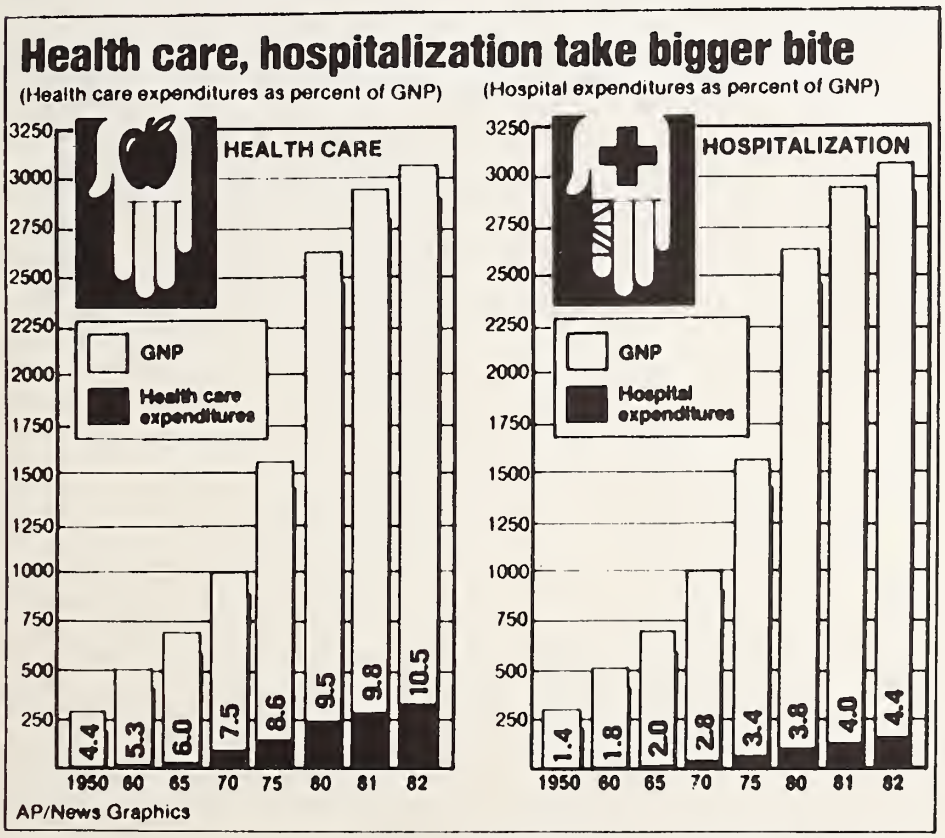
VOL. 33, NO. 2 March-April, 1984 MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

As Health Care Costs Continue Their Escalation So Does Level of Official Concern, Criticism

Montanans spent $825.9 million for health care in 1982, the latest figures available. That was 20.3 percent more than the $686.6 million for the previous year and raced far ahead of the national rate of increase, which was 12.3 percent. National health care expenditures in 1982 were $322.4 billion — more than the nation's defense budget and 10.5 percent of the country's gross national product.

Those are the figures that are monopolizing health care news and the attention of most public officials, and Montana certainly is no exception.

Gov. Ted Schwinden and Dr. John J. Drynan, director of the Montana Department of Health and Environmental Sciences, have been sounding the public alarm for several years.



SOURCE: U.S. Dept. of Health and Human Services

Chart depicts the steadily rising share of the gross national product that is spent on medical services and hospitalization.

Hitting the headlines recently was a conference in Great Falls on "Controlling Health Care Costs," sponsored by the Montana Chamber of Commerce and Montana's U.S. Senator Max Baucus.

Schwinden, Baucus and Joseph Califano, former U.S. Secretary of Health, Education and Welfare (now Health and Human Services), all aired their views on the subject before the 150 persons attending the seminar.

The following are excerpted remarks from each of those officials:

THE GOVERNOR —

Schwinden noted Montanans in general and employers in particular must become actively involved in efforts to contain health care costs and in seeking solutions to be aware of the complex problems of balancing the cost and quality of health care.

"The rising cost of health care is a silent thief," the Governor said, "reaching into our paychecks and appropriating an ever greater proportion of our hard-earned dollars. Health care expenses certainly eat into our take-home pay.

"We also are taking home less pay because a greater proportion of our income is spent on insurance premiums and government-supported health care programs such as Medicare and Medicaid.

"The Journal of American Insurance estimates federal, state and local governments purchase 40 percent of all health care.

"Strike 'governments' and insert 'taxpayers' and we begin to see how the silent thief works.

"Rising health care costs increase

(Continued on Page 2)

As Health Care Costs Continue Their Escalation

(Continued from Page 1)

business costs. To meet those increasing health premium costs, employers must pass on the cost to the consumer. Forbes magazine estimates $300 of the cost of every American car represents medical premiums paid by car manufacturers to their workers. Others put the estimate as high as $600 per car.

"As governor, I have urged the health care community to take the lead in determining how to stem the tide of rising health care costs. And, through participation of the Statewide Health Coordinating Council and its 'Governor's Health Care Conference,' Montana's health care industry has been involved.

"I remain convinced a committed effort from the health care community is essential if we are to temper rising costs.

"However, I will discuss what state government can do to help get a handle on health care cost increases.

"The certificate of need process requires the Department of Health and Environmental Sciences to approve or deny requests to add new health care services or facilities.

"State involvement in the CON process is intended to prevent excessive or duplicative services—which costs would be passed on to Montana taxpayers and health care consumers in the form of higher taxes, premiums and fees.

"The number of CON requests to the department has ballooned in the last six months. The volume and nature of the requests indicates the CON process and the health care system have reached a crossroads in Montana.

"The department currently has the highest number of requests for proposed facilities since the CON process was initiated — a total of $30 million worth. In addition, it has received letters of intent for six new nursing homes.

"Ironically, this record number of requests comes when we are experiencing a drop in hospital patient levels, and nursing home occupancy levels have remained static!

"The types of CON requests under consideration indicate some trends that should be examined. Just as the trend in medicine has gone from the family doctor/general practitioner to the highly trained specialist, the trend in health care facilities seems to be moving from the traditional community hospital to free-standing specialized institutions often owned by out-of-state corporations.

"It's time to turn on the yellow light — a time for caution.

"The CON process should be a planning process, enabling the health care community not only to provide quality health care, but also to provide it at an affordable cost.

"State law specifically requires the department CON review to explore 'the availability of less costly, quality-equivalent or more effective alternative methods of providing services.

"A few examples are in order.

"Surgi-centers — free-standing outpatient surgical units — are beginning to pop up across the nation as a less costly alternative to hospital surgery for some types of minor surgery. If, for instance, the state approves an additional surgical suite for a community hospital now, we might be precluding that community's ability to support a less expensive surgicenter in the future.

"Last year, Montana obtained a Medicaid waiver to allow some senior citizens to receive Medicaid reimbursements while remaining in their homes, rather than forcing them into nursing homes in order to receive Medicaid services. The program is still in its infancy and it is clearly too early to evaluate its success.

"But, if the state approves the construction of several new nursing home facilities, we might be nipping the Medicaid waiver program in the bud. If giving senior citizens a chance to remain in their homes is a more humane and less costly form of care, shouldn't we give the Medicaid waiver program and other alternatives a chance to work?

"We must continue to match documented needs against available resources. If we spend $16,000 or more annually on each of the 1,122 nursing home slots currently pending, there simply will not be adequate money left for other, more effective and less costly alternatives.

"Caution must be the byword for the CON process, but a yellow light does not mean 'stop'!

"The state should continue to approve requests for services or facilities when a serious need is documented. But we can afford to examine carefully the need for new facilities — in fact, we can't afford not to.

"In most cases, new health care facilities cannot and should not be considered economic development, because they would be financed primarily through insurance premiums and tax dollars. Instead of creating new wealth within the community, they merely would redistribute the existing dollars available — with a larger portion going to health care.

"The silent thief at work again."

THE SENATOR —

Baucus, senior Democrat on the U.S. Senate Finance Committee's health subcommittee and chairman of the Senate Democratic task force on Medicare and medical cost control, repeated remarks he recently made at the annual congressional forum before the American Group Practice Association, made up of medical clinics and other medical group practices in the United States.

Emphasizing the federal government is going to be a source of change in many areas of health care, too, Baucus said he expects Congress to focus on the Medicare program, "which is approaching insolvency within the next

(Continued on Page 3)

TREASURE STATE

HEALTH

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So Does Level of Official Concern, Criticism

(Continued from Page 2)

decade."

"Health expenditures, public and private, are continuing to increase even though the economy is showing extremely little inflation. Nationally, those expenditures have grown 66.7 percent in their share of the gross national product in just 17 years.

"And, spending for hospital care is the largest component of those outlays. So, while the consumer price index tumbled from almost 13 percent to 5 percent last year, we find progress against inflation stopped at the hospital door.

"In 1982, hospital costs went up three times the national inflation rate. Federal outlays for Medicare rose 21.5 percent and the cost of private health insurance rose 16 percent — the biggest increase ever.

"Rising health costs are a national problem, not only affecting the public sector, but also the private. In some cases these costs have contributed to American industry's loss of its competitive position. U.S. Steel, for example, estimates the cost of health benefits add an extra $20 to the price of each ton of steel.

"In addition, I read recently the major supplier for the Chrysler Corporation is not steel, it's Blue Cross and Blue Shield!

"My colleagues in Congress, Republicans and Democrats, read these statistics and they are demanding change and want to see results.

"That's why the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 — which extended and placed a year-to-year cap on Medicare's section 223 cost limits moved so quickly through Congress.

"That's why Congress enacted a new prospective payment system for hospital care under Medicare. Congress and the Administration want Medicare to be a prudent buyer for the health services it purchases from hospitals.

"For the time being, federal policymakers are willing to let Blue Cross, commercial insurance companies, businesses, and private-pay patients fend for themselves in their dealings with hospitals.

"To the extent that these parties are dissatisfied with hospital charges, you can anticipate pressure on Congress for increased hospital regulation.

"In addition, we need to make certain physicians' costs are also addressed. I don't believe many people realize Medicare Part B expenses are increasing at a faster rate than Part A hospital expenses.

"But, I must tell you many of my colleagues want to see the diagnosis related group system expanded to include payments to physicians when they practice in hospitals.

"Our experience over the next year or so with the new prospective payment system for hospitals will have a critical effect on that decision.

"Also, we need to decide what the public role should be in paying for care for those who have no insurance.

"There is great competition for the federal dollar, and Medicare is affected by that competition. In the reduction package assembled by the Senate Finance Committee, there are $9.4 billion worth of cuts in health programs over three years — $1.3 billion in Medicaid, and nearly all of the remainder in Medicare. These savings are achieved by requiring the elderly to pay some more, and by paying providers a little less.

"But this $9.4 billion pales compared to the savings we are going to have to find in Medicare during the coming decade.

"Unfortunately, there aren't any magic solutions to the problem. We have three options: 1) Raise taxes, 2) require the elderly to pay more, 3) control costs.

"The burden is big, and it must be shared. Nobody will be immune.

"I expect means-testing proposals to be on the table. And, the size of the Medicare deficit makes it extremely improbable that we will be able to avoid raising some taxes.

"Here are some other proposals put forth already:

- A voucher system, to "cash out" Medicare and give the elderly vouchers to purchase their care.
- Establish a federal all-payer system where states have not established their own cost control systems.
- Increase tobacco and alcohol taxes, increase the eligibility age for Medicare, tax employer-provided health insurance, increase cost-sharing by beneficiaries, restrict payments to providers — for a total estimated savings of $203 billion by 1995.

THE SECRETARY —

Califano warned Americans might one day have to ration artificial hip joints, organ transplants and other medical care by age unless surging medical care costs are dealt with now.

"Bluntly put, Uncle Sam will soon be playing King Solomon with your parents and mine, and with you and me.

"We still have time to avoid that fate, but to do so, people will have to take personal responsibility for our own health care as well as require hospitals, government and other institutions to reduce costs for society as a whole.

"The United States is on the verge of a four-generation society in which two generations of a family might be receiving Social Security and Medicare benefits at the same time. It's this combination of a significant elderly population with costly health care which is helping provoke the crisis.

"Fees for hospitals and medical services have been passed on to insurance companies, government, and individuals with little resistance on the paying side.

"Ninety-four percent of hospital bills are paid by insurance services or government and insured people mistakenly take the view that 'my insurance is paying for it,' leaving a system in which the buyer and the seller of medical services are out of touch."

Califano sketched several specific possible solutions for trimming health care costs:

- A comprehensive national health care policy that would end the shell game of passing costs around. "Under the present system, capping costs at the federal level, for example, typically leads to jumps in what hospitals charge state or private insurance."
- Stopping abuses, as well as 'featherbedding' built into health care systems because of some regulations. "My agency once found up to 50,000 clear cases of abuse in a one-year survey."
- Reducing the threat of malpractice suits by setting a more realistic standard of what constitutes negligence by a doctor. "Fear of malpractice suits leads to expensive insurance premiums for doctors that in turn swell medical costs."

One of every three people in the United States will have cancer during their lifetime.

• • •

More than 60% of people who have cancer die from the disease within 5 years.

• • •

A study reports cancer deaths might be reduced by 50% or more through modification in diet.

Public Says 'Not Us' for Health Cost Controls

Americans understand that health care costs are rising faster than general inflation and they are willing to give approval to certain inflation-reducing changes aimed at hospitals and other health providers.

However, as consumers, they seem much less willing to go along with cost-control measures targeted at them directly.

These are the findings of the Health Insurance Association of America survey as reported in "The Nation's Health," official newspaper of the American Public Health Association.

For instance:

- 83 percent of the 1,508 people polled agree it is a good idea for the government to have doctors publish their fees.
- 69 percent would approve of a plan for the government to have employers offer a choice of three health plans of different costs.
- 66 percent think individuals whose health care is paid for by federal funds should be required to use clinics and health maintenance organizations, which have a history of keeping costs down.
- 74 percent agree that hospitals within a particular area should coordinate services.
- 58 percent think hospitals should budget prospectively and charge according to those estimates.
- 54 percent agree Medicare benefits should be limited to those with financial need.

But, only 28 percent believe the people themselves are responsible for increases in health costs, and, accordingly, only:

- 49 percent would be willing to have routine illnesses treated by a nurse rather than a doctor.
- 36 percent would be willing to pay a higher deductible before their health insurance begins to pay.
- 36 percent would be willing to go to a clinic rather than see their personal physician.
- 21 percent would limit opportunities to use expensive technology.
- 21 percent would be willing to give up the right to sue for malpractice as another means of containing health costs.

The health publication quotes a representative of the Congressional Budget Office as explaining that, indeed, the entire push for cost control in health care does not come from the public at large.

Although businesses worry about health costs making them less competitive, and government is concerned about the soaring inflation in Medicare and Medicaid, the majority of the public is covered by employer-paid insurance plans and consequently is not the source of the outcry over costs.

"The Nation's Health" article also quotes Dr. William Schwartz, professor of medicine at Tufts University and co-author of the recently published book, "The Painful Prescription, Rationing Hospital Care."

Schwartz argues that many of the current cost-cutting proposals are leading the public to believe that most reduction can be made painlessly.

However, he explains, after the "fat" is eliminated from the system, providers will implement cuts which are not apparent to the patient, but which might have some marginal value. For example, tests such as the "CAT scan" might not be recommended.

Then, after that point, he says, decisions will have to be made on cuts which are apparent to the patient.

"Will we," Schwartz asks, "for example, deny people liver transplants because they are so expensive?"

He noted that with the tremendous technological innovations on the horizon, health care costs might be allowed to increase from the current 10.5 percent of the gross national product to 12 percent in 1990 — "And there is no law against that, it is a decision society has to make."

Other parts of the poll queried on attitudes toward prevention and ethics:

Prevention — 38 percent, down from 50 percent in 1981, believe health insurance should cover the costs of preventive health care, such as physical check-ups and health education, even if it means higher premiums. Another 27 percent disagreed with that position and 35 percent had no strong opinion.

Death and dying — 70 percent thought a family should be able to tell doctors to remove life support services and let a patient die if the patient is terminally ill, in a coma and not conscious, with no cure in sight; and, 51 percent thought a doctor should be able to end a person's life by some painless means, if the patient is incurable and requests death.

Ethics of reproduction — 52 percent said test-tube conception should be available to married couples who cannot conceive naturally, but only 22 percent said parents should be able to select the sex of their child, if science makes that a possibility in the future.

American corporations' annual payments for health insurance premiums for employees more than doubled in the last 5 years, from $33 billion to $78 billion.

Solons to Study Spending Limits For Health Care

A legislative group has been named to study ways of limiting the growth in state expenditures for health care, which otherwise are expected to exceed all of current state general fund spending by the year 2000.

Legislative Finance Committee Chairman Sen. Fred Van Valkenburg (D-Missoula) appointed himself to the subcommittee along with Sens. George McCallum (R-Niarada) and Pat Regan (D-Billings), and Reps. Gene Donaldson (R-Helena), Ray Peck (D-Havre) and Cal Winslow (R-Billings).

The subcommittee is to report to the full committee by September. Van Valkenburg says he hopes something can be included in the state budget next year or that legislation can be drafted for introduction in January.

State expenditures for health care are principally for the poor through Medicaid, but also include health insurance premiums for state employees, health care in the state custodial institutions and medical benefits in workers' compensation cases.

If medical costs continue to climb at rates similar to those of the last 20 years, the state government's Medicaid budget alone by the year 2000 will reach $720 million, roughly the amount of the entire present state budget.

Van Valkenburg noted outpatient hospital costs for Medicaid-eligible clients increased 125 percent between 1980 and 1983. Inpatient hospital costs rose 93 percent.

He said when the Medicaid program started, it was estimated Montana's total cost would not exceed $1 million per year. "However, by 1974, the Medicaid program cost $21 million per year, and for the current fiscal year, the Medicaid budget is $100 million."

Van Valkenburg said the new health care subcommittee will review Medicaid's eligibility requirements, services available whether mandatory or optional, and hospital costs.

National Cancer Prevention Campaign Launched To Counteract Fatalistic Attitudes of Public

A survey by the National Cancer Institute found about half of all Americans think "everything causes cancer" and "there's not much a person can do to prevent cancer."

That attitude actually contributes to nearly 100,000 cancer deaths each year, according to the institute, because studies indicate that number of lives could be saved if more people adopted living habits known to prevent cancer.

Reacting to its survey findings, the institute, which oversees the federal government's $1 billion-a-year battle against cancer, started a $1 million program to make cancer prevention a national reality.

The goal is to save 95,000 lives each year by the year 2000, in addition to the 105,000 lives the institute hopes will be saved each year through wider application of improved detection and treatment techniques.

Contrary to public impression, factors in the general environment which cause or promote cancer, such as occupational exposures, food additives and environmental pollutants, are estimated by international cancer experts to cause at most 7 percent of the 870,000 cancers which strike Americans each year.

Viruses and medical procedures are believed responsible for another 6 percent, and non-environmental factors are believed to account for another 16 percent.

But, that leaves more than 70 percent of cancers caused by factors which are within the control of individuals: Tobacco, 30 percent; overall diet, 35 percent; heavy alcohol consumption, 3 percent, and excessive exposure to sunshine, 3 percent.

Yet the institute's survey showed 49 percent of Americans do not know cancer is most often caused by the way people live. When asked what health problems are caused by lifestyle, cancer was mentioned by only a small percentage of 1,876 people surveyed.

According to a copyrighted story of the New York Times, the institute saw this as a clear need to improve public awareness of the role individuals can play in preventing cancer deaths.

For example, the Times story says, if the number of smokers were cut in half, the institute claims 75,000 lives would be saved each year. And, if most people adopted dietary changes believed to prevent cancer, 20,000 more lives could be saved annually. Together, then, these two actions would mean a total of 25 percent fewer cancer deaths than occurred last year in the nation.

The institute is distributing millions of "Good News" cancer prevention pamphlets and individuals can obtain free copies by calling toll-free 1-800-4-CANCER, or by writing to the National Cancer Institute, Building 31, Room 10A18, Bethesda, MD 20205.

The pamphlet advises:

- Do not smoke or use tobacco in any form. Smoking greatly increases the risk of cancers of the lung, larynx, esophagus, pancreas, bladder, kidney and mouth. The risk of developing cancer decreases immediately on quitting smoking. Smokeless tobacco does not protect against cancer.
- If you drink alcoholic beverages, do so only in moderation (one or two drinks daily). Heavy drinking, especially in conjunction with smoking, increases the risk of cancers of the mouth, throat, esophagus and liver.
- Eat foods low in fat. The high-fat diet, both animal and vegetable fats, typically consumed by Americans increases risk of developing cancers of the breast and colon, among others.
- Include fresh fruits, vegetables and whole grain cereals in your daily diet. The fiber in these foods and in dried beans and peas is protective. Especially beneficial are fruits and vegetables rich in beta-carotene, a precursor of vitamin A, and vitamin C, including dark green vegetables, yellow-orange fruits and vegetables, citrus fruits, tomatoes and peppers.
- Avoid unnecessary X-rays. Be certain a radiation shield, such as a lead apron, is used to protect other parts of your body when an X-ray must be done.
- Keep safe from cancer-causing substances on the job by using recommended protective devices, such as respirators, masks and protective clothing.
- Avoid too much sunlight, especially between 11 a.m. and 2 p.m. When in the sun for prolonged periods, wear protective clothing or use a sunscreen with a high degree of protection (SPF 15, for example).
- Menopausal women should take estrogens only for as long as they are needed to control symptoms. Low doses of estrogen combined with progesterone can reduce the risk of cancer.

Nearly 61 percent of respondents to the institution's survey said they would "very likely" follow advice from physicians on ways to reduce cancer, but nearly 86 percent said no doctor ever offered them such advice.

RESEARCH SHOWS:

THE LARGEST CANCER FACTORS ARE THE ONES WE CAN CONTROL

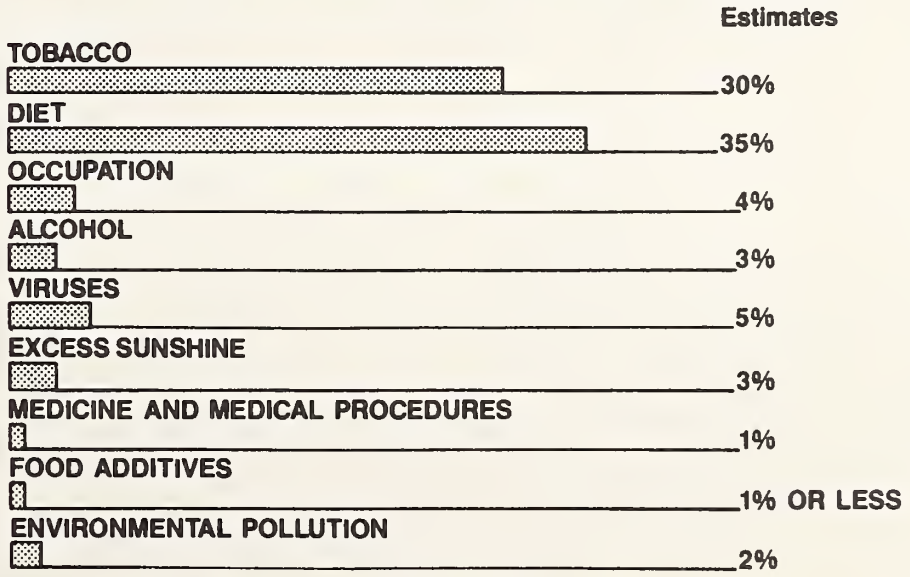


Chart: U. S. Department of Health and Human Services

Three Honored At Billings MPHA Meeting

Three awards highlighted the annual Montana Public Health Association conference in Billings. Janet Baker, a microbiologist in the Montana Department of Health and Environmental Sciences' laboratory, is MPHA president.

Mary Alice Rehbein, public health nurse at Sidney, received the Mary E. Soules distinguished service award.

Mrs. Rehbein's nursing career in Montana began in 1950, when she was hired as the public health nurse for the Richland county health department. Her continuing participation in professional nursing organizations and dedication to public health not only has enlarged and improved programs in Richland county, but also has served as a model for public health services throughout Montana.

James H. Foley, executive director of Montana Health Systems Agency, Helena; and Jan Treml, R.N., deputy director of the Yellowstone city-county health department, Billings, both received special recognition awards given to those who have achieved the respect and appreciation of their peers through exceptional personal effort.

Janet Baker

This year's MPHA $200 scholarship will go to Lynda C. Fraylick of Bozeman. She will be entering her senior year in community health nursing at Montana State University's extended campus in Butte next fall.

HEALTH EVENTS CALENDAR

(Please submit all items for inclusion in this calendar at least two months in advance of scheduled date for event, if possible.)

Date	Event	Location	Sponsors
May (National High Blood Pressure Month)			
6-12	Clean Air Week, National Asthma and Allergy Awareness Week		
11-12	Advanced Trauma Life Support Course	Big Sky	AC of S, MMA, MSU, DHES
18	Patient Education Workshop	Billings	Dist. 6 Hlth Care Ctr.
18-19	MT Deaconess Pulmonary Conference	Great Falls	Deaconess Med. Ctr.
19-29	EMT Basic Exam	Butte	DHES
June			
7-8	International Symposium, Potassium in Cardiovascular & Renal Medicine	Baltimore, MD	Johns Hopkins
20-23	34th Scientific Assembly, MT Academy of Family Physicians	Big Sky	MAFP
17	Horse-A-Thon for Huff 'n Puff	Anaconda	Joe McCarvel
23-24	EMT Basic Exam	Billings	DHES
July			
8	Horse-A-Thon for Huff 'n Puff	Butte	Charlie O'Leary

Summertime Health Tips For Everyone

Sunglasses — Cheap sunglasses, which do not filter out the sun's ultraviolet rays, might do more harm to the eyes than wearing no sunglasses. The cheap glasses will cause the pupils of the eyes to dilate in order to allow more light into the eye; but that also allows in more ultraviolet and infrared rays. These rays might play a role in development of cataracts and other eye problems.

Most major sunglass manufacturers produce lines which do filter out the harmful rays, but they are usually more expensive than regular lines.

Before buying sunglasses, optometrists recommend the following precautions:

- Examine them against the light for scratches, streaks, bubbles or blurs.
- Hold them at half of arm's length and focus on objects with vertical and horizontal lines. Move glasses up, down and sideways. If the lines waver, the lens is distorted.
- Check to see that lenses are of equal color and density.

Optometrists strongly recommend wearing protective glasses while engaged in sports, or doing yard and garden work.

Too Much Sun — Symptoms of sunstroke or heatstroke include weakness, hot, dry skin and a flushed appearance. Victims should be sponged with cool water and given cool — not iced — water or fruit juice to drink. If body temperature reaches 105° it can be fatal, so medical help should be sought immediately.

Severe sunburn can lead to blisters and swelling, even sear fat, muscle and bone. When a burn is this severe, get medical help, remove any clothing near the burn that will come off easily and cover burned area with sterile dressing. Apply no ointments.

Food Poisoning — This occurs any time of the year, but improperly cleaned fruits and vegetables and outdoor meals seem to increase the incidence during summer months. If stomach cramps and nausea occur, victim should be put to bed and given warm, mild fluids to drink after vomiting has stopped. If symptoms persist, a doctor should be seen.

The National Academy of Sciences cites studies which estimate diet might be responsible for up to 50% of cancer in men and women.

— INDICATORS —

Caffeine Boosts Pain Relief — Although recent tests seem to prove the amount of caffeine in a cup or two of coffee can boost the effectiveness of over-the-counter pain relievers, such as aspirin, as much as 40 percent, researchers aren't sure the full effect can be achieved by just swallowing the pills with a cup of coffee. For some reason, the researchers did not examine that simple method, according to Eugene M. Laska, Rockland Research Institute, Orangeburg, NY.

Disposables Reused — A panel at an international conference at the Georgetown University Medical Center reported this month that there are numerous reports of widespread reuse of disposable medical devices. One panelist suggested such reuse might increase if government funds for medical care are further reduced. Panelists stressed such a policy might be false economy if factors such as labor, administrative costs and possible malpractice suits were taken into consideration.

Health Food Myths — Many so-called 'health foods' are not only nutritionally deficient, but also expensive. For example:

- Honey has 18 more calories per tablespoon than refined sugar, and rots teeth faster.
- Raw foods are not necessarily superior to cooked. Foods which are nutritionally improved by cooking include dried peas and beans, peanuts, Irish and sweet potatoes, spinach, broccoli, cauliflower, carrots, cereals and grains, and milk.
- Nuts and seeds, while rich in protein, are also extremely high in fat and calories.
- Carob, often used as a substitute for chocolate, starts out lower in fat, but is higher in sugar, and fat must be added to make candies.
- Yogurt is a handy, but expensive way to drink low-fat milk, and the presweetened brands contain much more sugar than a nutritious food should.
- Herbal teas may contain potent drugs which can produce severe reactions if consumed in large amounts.

Accutane Warning — The Food and Drug Administration has issued further warnings concerning the use of Accutane, a drug for treating severe cystic acne. The FDA warns of possible birth defects resulting from the use of Accutane during pregnancy; and now warns of danger in transfusing a pregnant patient with blood donated from a person taking Accutane.

Cheaper Hepatitis B Vaccine — Caltech biologists are hopeful of producing an inexpensive vaccine from artificially made protein parts to combat hepatitis B by 1987. Existing vaccine costs about $100 per dosage.

New Burn Treatment — Less pain and a higher survival rate for severely burned patients is the result of a new treatment being used at the University of New Mexico Hospital burn center. The treatment uses a combination of synthetic skin and a new anti-bacterial sulfa solution to cover wounds while they heal.

Books on Alzheimer's Disease — Two books which can aid in recognizing and dealing with Alzheimer's disease have been published recently. They are: "Dementia: A Practical Guide to Alzheimer's Disease and Related Illnesses" by Dr. Leonard Heston and June White, $9.95; and "The 36-Hour Day" by Dr. Peter Rabins and Nancy Mace, $6.95. Both books are available from the National Headquarters of the ADRDA, 360 N. Michigan Ave., Chicago, IL 60601.

Dental Chief Lauds Nurses For Programs

An article in an earlier issue of Treasure State Health indicated Glacier and Rosebud were among 14 counties in the state with neither a fluoride mouthrinse program nor dental screening.

Janet Juneau, school nurse for grades kindergarten through sixth at Browning promptly wrote to correct that in regard to school district 9 there.

And now, Geraldine Brady, school nurse at Lame Deer, writes that public school has been involved with the fluoride mouthrinse program for three years and does a comprehensive screening every fall, which includes dental screening, done by the Indian Health Services.

Dr. William G. Haggberg, chief of the dental/health education bureau in the Montana Department of Health and Environmental Sciences, said, "I'm delighted to hear the IHS is providing these services in those school districts," and explained the article was referring to the programs currently provided and supported through state funding and consultation.

"I apologize for not making that clear and in no way intended to demean any program the IHS has in place," Haggberg added, noting, "It would be to both our advantages if IHS and the state would communicate more closely on our dental programs."

You Like Us! — Some of You More Than Others!

So far, 128 of our readers returned the survey "coupons" published in the last two issues, and nearly a third of those replies (38) also contained complimentary comments.

One approved of our writing, but not our selection of topics. Three thought the material was too general, and one thought it too technical, and 66 people suggested topics for future articles. Also, 27 names were suggested as interested recipients of Treasure State Health.

The most popular of suggested subjects was nutrition, in its various aspects, including diets for diabetics, vitamins, diets to deter cancer, child nutrition, and anorexia/bulimia. Next in popularity was the subject of aging, along with Alzheimer's disease. Five of you want us to continue our series of articles on health care costs — and we are, and five want more information on health education in the communities and schools, including dental programs — and we will.

Four want more articles on air and water pollution and regulation. Three of our local health officers request articles on the programs and accomplishments of local departments. We can only reiterate — you send them to us, and we'll publish. We have no travel budget.

We do appreciate your interest, comments and suggestions. Often, we find that people who have begun only recently to receive TSH will request articles on subjects we have done previously.

Other subjects we might avoid because we believe they are to be covered by other agencies. This would be such things as alcohol and drug abuse or mental health, which are under the jurisdiction of the Department of Institutions; or details on Medicare, Medicaid or programs for the disabled, which usually fall within the responsibility of the Department of Social and Rehabilitation Services.

Microscope Acquired by Microbiology Laboratory Enables Quicker Diagnosis of Certain Organisms

The microbiology laboratory of the Montana Department of Health and Environmental Sciences has acquired a "new" old microscope with enough magnification to enlarge a 25-cent piece to more than 2¼ miles across.

It's a Hitachi HVIIA, built in 1963, a transmission electron microscope (TEM) with the accelerating potential of 100 KV.

Instead of using visible light or photons to resolve a minuscule object, as does a conventional microscope, the TEM uses electrons to observe the specimen. Being much smaller than photons, electrons are able to resolve much smaller objects.

According to Doug Abbott, chief of the microbiology bureau, having the TEM allows the laboratory to diagnose more quickly certain organisms which are time consuming and more difficult to identify by other means.

Primarily, the laboratory will use the microscope to examine viruses in stools, such as Norwalk agents, Rotavirus, and other enterics, Abbott explained. Large pox viruses, such as orf, now can be visualized directly from lesions, he added.

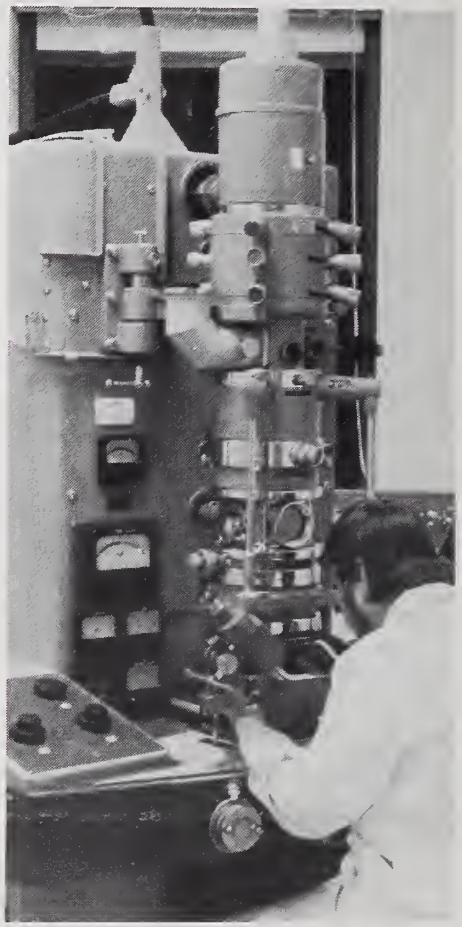
The TEM microscope is quite similar to a light microscope in basic construction principle, Abbott says, but it differs in how the electrons or photons are controlled.

The TEM microscope uses a magnetic field to focus the electron beam instead of glass lenses. Visualization is achieved by placing a fluorescent screen behind the specimen. Electrons that are not obstructed by the specimen strike the screen to excite the fluorescent molecule to emit visible light waves the eye can detect. Thus, a negative shadow is produced by the transmission of electrons through a thin specimen.

Because of the nature of electrons, the entire beam, specimen and screen must be under a high vacuum.

For comparison, a good quality light microscope has a maximum potential of about 1,200 power magnification and a resolution of about 2, or 2×10^{-7} meter. The TEM microscope can magnify to about 100,000 power and resolve to about 10, or 10×10^{-10} meter.

A much simpler explanation is how Abbott's laboratory acquired the TEM microscope: When the Department of Livestock's diagnostic laboratory at Montana State University in Bozeman acquired a modern, computerized scanning-transmission electron microscope, the space-consuming, unused TEM microscope was transferred to Helena and the microbiology laboratory.



Abbott . . . Enlarging quarters to 2¼ miles across with TEM microscope.

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